L6: Entry 35 of 37 File: DWPI May 23, 1978

DERWENT-ACC-NO: 1978-46816A
DERWENT-WEEK: 197826

TITLE: Aryl-acetic acid prepn. without using cyanic cpd. - by reacting aromatic aldehyde with carbon mon:oxide and water in presence of catalyst contg. Gp=VIII metal (cpd.)

Basic Abstract Text (1):
Prepn. of an arylacetic acid comprises reacting an aromatic aldehyde with CO and water in the presence of a catalyst consisting of (a) a Gp. VIII metal or a cpd. of such a metal and (b) bromine or iodine or a cpd. thereof, and, when desired, (c) copper, silver or a cpd. thereof.

Basic Abstract Text (2):
Pref. Rh (cpd.) is used as (a) and pref. I2 or a cpd. of iodine is used as (b). The material (a) is used in an amt. of 1 x 10-4 -5 x 10-2 g.atom (metal atom) w.r.t. 1 mol. of aromatic aldehyde and (b) is used in an amt. of 1-100 times in terms of atomic ratio w.r.t. (a). Component (c) is used in an amt. of 0.01-50 times in terms of metal atomic ratio w.r.t. (a). Reaction temp. is pref. 100-200 degrees C.

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=> s 106-65-0/prep
         1323 106-65-0
      3056999 PREP/RL
L1         221 106-65-0/PREP
               (106-65-0 (L) PREP/RL)

=> s l1 and oxidant
        35300 OXIDANT
L2          2 L1 AND OXIDANT

=> s l2 and caprolactam
        18705 CAPROLACTAM
L3          0 L2 AND CAPROLACTAM

=> d l2 1-2 ibib abs hitstr

L2   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:        2003:550002  CAPLUS
TITLE:                   The oxidation of primary alcohols to methyl esters and
                         diols to lactones using trichloroisocyanuric acid
AUTHOR(S):               Hiegel, Gene A.; Gilley, Cynthia B.
CORPORATE SOURCE:        Department of Chemistry and Biochemistry, California
                         State University, Fullerton, CA, USA
SOURCE:                  Synthetic Communications (2003), 33(12), 2003-2009
                         CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER:               Marcel Dekker, Inc.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Primary alcs. and diols are easily oxidized to Me esters by a soln. of
     trichloroisocyanuric acid with Me alc. in dichloromethane.  In addn.,
     .alpha.,.omega.-diols are also readily oxidized into lactones by refluxing
     with trichloroisocyanuric acid and pyridine in dichloromethane.
IT   INDEXING IN PROGRESS
IT   106-65-0P, Dimethyl succinate
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (oxidn. of primary alcs. to Me esters and diols to lactones using
        trichloroisocyanuric acid oxidant)
RN   106-65-0  CAPLUS
CN   Butanedioic acid, dimethyl ester (9CI)  (CA INDEX NAME)
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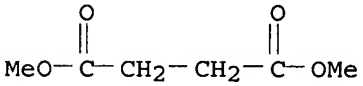

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REFERENCE COUNT:         13   THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2   ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:        1998:479504  CAPLUS
DOCUMENT NUMBER:         129:124061
TITLE:                   Percarboxylic acid solutions with storage stability
INVENTOR(S):             Carr, Graham; James, Alun Pryce; Morton, Kelly Jane;
                         Sankey, John Phillip; Lawton, Valerie
PATENT ASSIGNEE(S):      Solvay Interox Ltd., UK
SOURCE:                  PCT Int. Appl., 32 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
     WO 9828267         A1   19980702      WO 1997-GB3461   19971216
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR,
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KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, NO, NZ,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
GA, GN, ML, MR, NE, SN, TD, TG

AU 9878728	A1	19980717	AU 1998-78728	19971216
AU 734381	B2	20010614		
EP 946506	A1	19991006	EP 1997-949068	19971216
EP 946506	B1	20030903		
R: BE, DE, ES, FR, GB, IT, NL, SE, PT, FI				
BR 9713781	A	20001024	BR 1997-13781	19971216
NZ 336310	A	20010629	NZ 1997-336310	19971216
MX 9905845	A	20000430	MX 1999-5845	19990621
US 6274542	B1	20010814	US 1999-331395	19991102

PRIORITY APPLN. INFO.: GB 1996-26637 A 19961221
WO 1997-GB3461 W 19971216

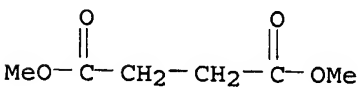
OTHER SOURCE(S): MARPAT 129:124061

AB Storage stable aq. acidic solns., often having a pH of up to 1 contg. an ester peracid and/or an acid peracid can be obtained by reacting a diester satisfying the general formula R1-O-CO-R2-CO-O-R3 (in which R1 and R3 each represents a alkyl group contg. from 1 to 4 carbon atoms which may the same of different and R2 represents an aliph. alkylene group optionally unsatd. which may be linear or branched contg. from 2 to 6 carbon atoms) with aq. hydrogen peroxide in the presence of an acid, such as sulfuric acid and permitting the compns. to progress towards equil. concns. Also claimed is the use of above compn. as a disinfectant. By starting with a diester, perhydrolysis generates an ester peracid which is a particularly effective peracid. The process can be controlled to produce solns. contg. a high peracid content and within a wide range of ratios of ester peracid to acid peracid. Percarboxylic acids are absent of off-putting odors and applied in a wide range of uses such as oxidants, stain removers, and microbicides. Thus, 106 g DBE (a mixt. of the di-Me esters of succinic, glutaric, and adipic acids in 16, 58, and 26%, resp., Dupont) was stirred at .apprx.22.degree. with 594 g demineralized H2O and 10 g H2SO4 and 287 g 35 wt% aq. H2O2 was introduced slowly into the stirred mixt. while keeping the soln. temp. at .apprx.20.degree.. The resulting soln. contained a significant concn. of monoperacids derivs. of succinic, glutaric, and adipic acids as the predominant peracid species and residual H2O2. After adding 0.12 g p-hydroxybenzoic acid, the soln. was stored in a screw capped high d. polyethylene bottle in a dark temp. controlled enclosure to show the available oxygen in the soln. 98.6 and 97.5% after 4 and 8 wk, resp. Antibacterial activity of similarly prepd. peracid compns. against Staphylococcus aureus and Escherichia coli was given.

IT **106-65-0DP**, Dimethyl succinate, reaction product with aq. hydrogen peroxide
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(prepn. of percarboxylic acid solns. by reaction of dicarboxylic acid diesters with hydrogen peroxide and storage stability)

RN 106-65-0 CAPLUS

CN Butanedioic acid, dimethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT